Abstract of the Disclosure

A method models movement of users in an environment including sensors connected in a network. Events due to movement of the users are detected at the sensors and each event is labeled according to a particular sensor and time of the event. The events for each sensor are summed into a corresponding histogram time interval bin. A plurality of co-occurrence matrices are generated from the histograms according to $C_{i,j,\delta} = \sum_{t=o}^{T} H_{i,t} H_{j,t+\delta}$, where i and j represent each possible pair of sensors, δ represent time-off-sets, T is a total time for the detecting, t represents a particular time, and H represents the histogram time interval bins. The co-occurrence matrices can be used to determine a geometry of the network, and for predicting future activities signaled by terminating events.